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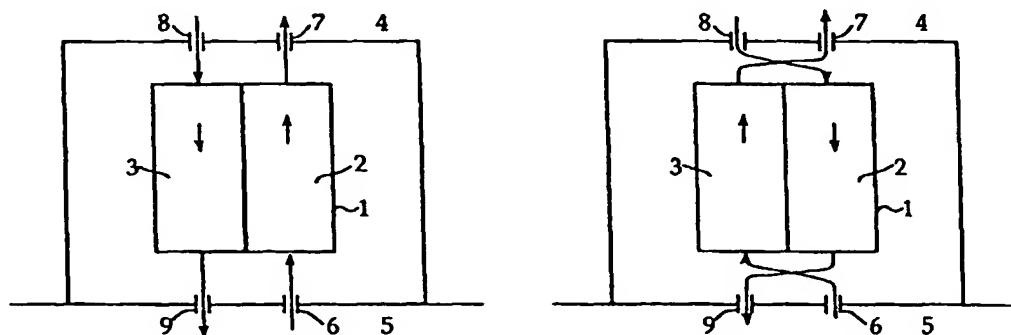
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(54) Title: HEAT RECUPERATOR WITH FROST PROTECTION



(57) **Abstract:** The invention relates to a heat exchanger (1) for transferring thermal energy from a warm gas flow to a cold gas flow, comprising: a first group of ducts (2) with a first connection and a second connection; a second group of ducts (3) with a third connection and a fourth connection, which group is thermally coupled to the first group of ducts; first supply means (6) for supplying the cold gas flow to the first connection; first discharge means (7) for discharging the cold gas flow from the second connection; second supply means (8) for supplying the warm gas flow to the third connection; and second discharge means (9) for discharging the warm gas flow from the fourth connection, wherein the device comprises alternating means for temporarily and repeatedly alternating in pairs the supply and discharge means on the connections.

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B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

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C. DOCUMENTS CONSIDERED TO BE RELEVANT

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Y	column 17, line 59 -column 18, line 5 column 23, line 46 -column 24, line 36; figures	10
Y	--- US 5 024 263 A (NYMAN MIKKO ET AL) 18 June 1991 (1991-06-18) abstract; figures	10
X	--- PATENT ABSTRACTS OF JAPAN vol. 013, no. 392 (M-865), 30 August 1989 (1989-08-30) -& JP 01 137139 A (MATSUSHITA SEIKO CO LTD), 30 May 1989 (1989-05-30) abstract; figures --- -/--	1-3,6,9, 11

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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